

Material girl

From the gondolas of Venice to the fields of Lodi Vecchio, materials expert Daniela Mazza has traveled across Italy to finally arrive at Trelleborg, where she is part of an Innovation & New Developments team that perfects the quality of print.

TEXT DONNA GUINIVAN PHOTOS MAURIZIO CAMAGNA

Wrestling with the periodic table on a daily basis wouldn't perhaps be everyone's first career choice, but for Daniela Mazza, chemistry is her first love. Her youthful appearance belies her almost 15 years' experience behind the microscope. Before joining Trelleborg Coated Systems, she was at Pirelli, then in the automotive industry and finally with a rubber manufacturer where she saw applications for almost every sector, from sealing to electronics and electrical appliances.

Mazza's move to focus on printing solutions three years ago was a departure from her earlier roles. "Other than Pirelli, the companies I was employed by were just based in

Italy," she says. "I was really attracted to Trelleborg because it was international and therefore presented an opportunity for me to grow in my career.

"I've always been involved in the chemical analysis of rubber but I was amazed at the level of detailed examination and the quality requirements for printing blankets. There is no comparison to the other applications I have been involved with. Here we're working to around 100 microns or less."

The printing blanket, a layered fabric and rubber mat, is a critical element in the printing process that transfers or offsets (as in offset printing) an image from a printing plate to a surface. Traditionally this would have been paper or cardboard, but

increasingly the process involves other substrates such as metal cans (both two- and three-piece) or plastics, each of which presents its own particular challenges.

"Perfection in print reproduction is paramount," continues Mazza. "Print is not dead; it's alive and kicking. But requirements are changing. Yes, the volume is lower in certain segments, yet it is increasing in others. The demand for flawlessness has intensified; like with a fine diamond, when even the very slightest inclusion can ruin it."

In the complex parts of a printing blanket, the rubber has different functions; in the top, the inner layer and on the bottom. It may provide chemical resistance or compatibility





Mazza in the QC
Lab in Lodi Vecchio,
monitoring various
tests carried out on
raw materials.



with different inks and mechanical function.

Mazza loves her job, and what drives her is the joy of grappling with a chemical conundrum. She also enjoys her outward-facing role, working with the third-party suppliers of raw rubber materials for the printing solutions. Her job here is to ensure that the materials supplied meet standards, and in particular, that they fulfill the needs of current and future applications.

Having provided support to Japanese printers recently, Mazza

says, “Worldwide, Japan is the country that demands the highest print quality. We often receive feedback from our dealers who represent and distribute our solutions. They meet with printers every day and report results, benefits and achievements. Sometimes our Japanese dealers will highlight a printing defect and when they do, it is often so small, it can only be seen with a magnifying glass.”

This triggers an investigation by Mazza and the R&D team. The blemish could be caused by any

Above: At Lodi Vecchio labs, the team undertakes a wide range of tests. Here they are running analysis on a printing blanket.

component or function of the blanket, including the chemicals. “We examine every aspect of the blanket digitally and chemically to find the root cause. This challenges us, and what we learn from these printers who are demanding the ultimate print quality is transferred across all of our solutions to enhance and improve the quality of our offerings for all printers.

“Sometimes the investigation can result in the development of a new material, a product test or validation process. This is a key part of



The solventless roller-head equipment during one of the manufacturing phases.



The roller-head must be cleaned regularly.



our customer-focused approach; listening to printers' requirements to boost their business."

As part of the material development team, Mazza also contributes to group-wide rubber initiatives. "I've been involved with the integration and homologation of processes between our operation here and our acquired printing blanket operation in Slovenia, as well as in projects in Sweden."

She also highlights the trend toward environmentally friendly

"A key part of our customer-focused approach; listening to printers' requirements to boost their business."

Daniela Mazza, Trelleborg



Above: Discussions take place during the quality control and visual inspection of the final product.

solutions, which is vital in China where the government is legislating to exclude certain chemicals from the printing process.

“Traditionally, printing has involved quite nasty chemicals, but over the years many of these have been excluded. We’ve been at the forefront of this sustainable trend in our own processes. We were one of the first printing blanket companies to have a solvent-free roller head line. Not only did this improve our production speed and product

quality, but it is also a much more environmentally friendly solution.

“To respond to the requirements, especially in China, we are ensuring that all our products comply with current and forthcoming standards. This may mean that we have to change a compound’s recipe to conform and it is a challenge to maintain performance with a different formula. It’s very important work.” ■

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Research and development for printing solutions

The Innovation & New Developments team at Lodi Vecchio supports printing blanket product development and customers globally. Currently it is eight strong, and being multi-disciplined, all team members contribute their own area of expertise to projects. As the chemical expert, Mazza works with suppliers, production and other members of the Innovation & New Developments team. She says, “The people in the Lodi Vecchio team here are the best that I have ever worked with.”